```
=> file reg
FILE 'REGISTRY' ENTERED AT 10:56:43 ON 02 NOV 2005
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=> display history full l1-


     FILE 'LREGISTRY' ENTERED AT 10:23:10 ON 02 NOV 2005
L1              STR
L2              STR
L3              STR L1

     FILE 'REGISTRY' ENTERED AT 10:36:22 ON 02 NOV 2005
L4            50 SEA SSS SAM L1
L5               SCR 1840
L6            50 SEA SSS SAM L1 NOT L5

     FILE 'LREGISTRY' ENTERED AT 10:39:06 ON 02 NOV 2005
L7              STR L1

     FILE 'REGISTRY' ENTERED AT 10:41:12 ON 02 NOV 2005
L8            11 SEA SSS SAM L7
L9               STR L7
L10           25 SEA SSS SAM L9
L11         1370 SEA SSS FUL L9
                 SAV L11 COS111/A
L12            0 SEA SUB=L11 SSS SAM L2
L13            6 SEA SUB=L11 SSS FUL L2
                 SAV L13 COS111A/A
L14            0 SEA SUB=L11 SSS SAM L3
L15              STR L3
L16            0 SEA SUB=L11 SSS SAM L15
L17           16 SEA SUB=L11 SSS FUL L15
                 SAV L17 COS111B/A

     FILE 'HCA' ENTERED AT 10:53:48 ON 02 NOV 2005
L18            4 SEA L13
L19            7 SEA L17
L20          323 SEA L11
L21       336452 SEA (LUBRIC? OR LUBE# OR GREAS? OR ANTIFRIC? OR ANTIWEAR?
                  OR ANTICORRO? OR ANTIRUST? OR ANTIOXID? OR ANTI(W)(FRIC?
                  OR WEAR? OR CORRO? OR RUST? OR OXID?) OR SLICK? OR
                 SLIPP? OR OLEAGINOUS?)/BI,AB
L22        24942 SEA ((GEAR? OR ENGINE# OR CRANKCASE? OR MOTOR# OR
```
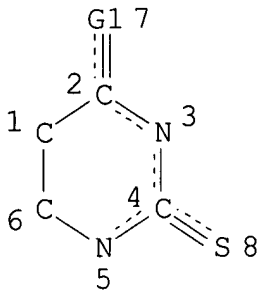

TRANSMISSION? OR HYDRAUL? OR MACHINE? OR (2 OR 4 OR TWO OR FOUR)(W)(CYCLE# OR STROKE#))(2A)(FLUID# OR OIL#))/BI,AB

L23 7 SEA L20 AND (L21 OR L22)
L24 17 SEA L18 OR L19 OR L23

FILE 'REGISTRY' ENTERED AT 10:56:43 ON 02 NOV 2005

=> d l13 que stat
L2 STR

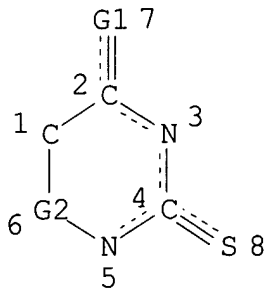


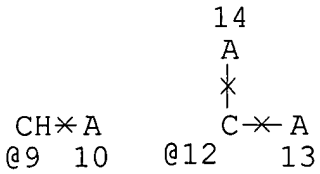
Ak 11

VAR G1=O/S
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 11
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M6 C AT 11

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 9

STEREO ATTRIBUTES: NONE
L9 STR





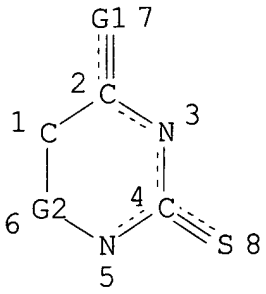
VAR G1=O/S
VAR G2=CH2/9/12
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

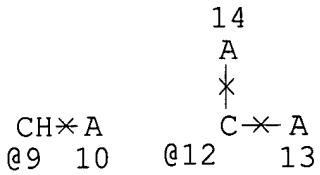
GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE
L11 1370 SEA FILE=REGISTRY SSS FUL L9
L13 6 SEA FILE=REGISTRY SUB=L11 SSS FUL L2

100.0% PROCESSED 1370 ITERATIONS 6 ANSWERS
SEARCH TIME: 00.00.01

=> d l17 que stat
L9 STR

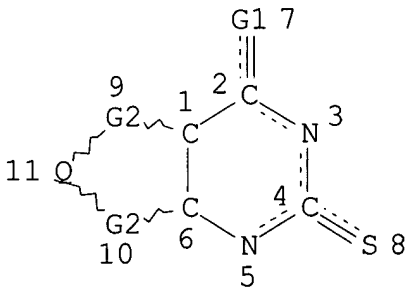




VAR G1=O/S
VAR G2=CH2/9/12
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE
L11 1370 SEA FILE=REGISTRY SSS FUL L9
L15 STR



VAR G1=O/S
REP G2=(0-5) A
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE
L17 16 SEA FILE=REGISTRY SUB=L11 SSS FUL L15

100.0% PROCESSED 1370 ITERATIONS 16 ANSWERS
SEARCH TIME: 00.00.01

=> file hca
FILE 'HCA' ENTERED AT 10:57:36 ON 02 NOV 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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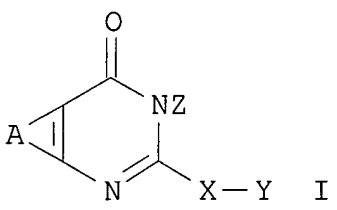
=> d l24 1-17 cbib abs hitstr hitind

L24 ANSWER 1 OF 17 HCA COPYRIGHT 2005 ACS on STN
143:26424 Preparation of bicyclic pyrimidin-4-(3H)-ones, their analogues and derivatives which modulate the function of the vanilloid-1 receptor (VR1). Hollingworth, Gregory John; Jones, A. Brian; Sparey, Timothy Jason; Bayliss, Tracy; Jarvis, Rebecca Elizabeth (Merck Sharp & Dohme Limited, UK). PCT Int. Appl. WO 2005049613 A1 20050602, 105 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IS, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2004-GB4816 20041112. PRIORITY: GB 2003-26634 20031114; GB 2004-8348 20040414.
GI



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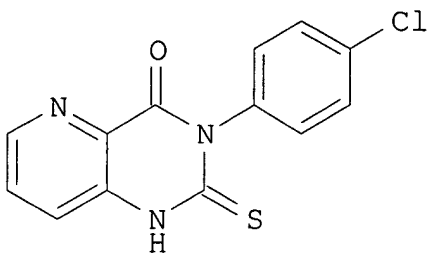

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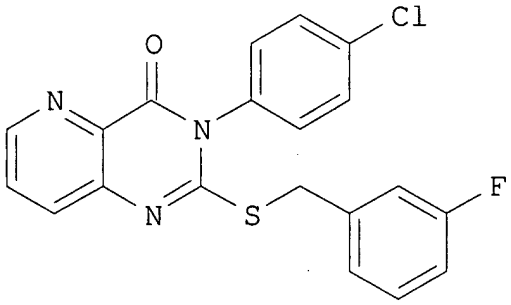


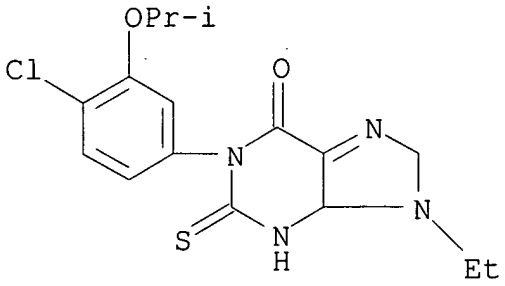
III

AB The title compds. I [A = CH:CHCH:CH, fused 5-membered heteroarom. ring, fused 6-membered heteroarom. ring; A is substituted with halide, OH, S(O)rC1-C4alkyl, S(O)rNR5R6, CHO, C1-C4alkylcarbonyl, (amino)(halo)(hydroxy)C1-C6alkyl, (halo)(hydroxy)C1-C6alkoxy, C3-C7cycloalkoxy, C3-C7cycloalkyl, C2-C6alkenyl, C2-C6alkynyl, NH2, cyano, NO2, C1-C6alkylamino, di(C1-C6alkyl)amino, aminoC1-C6alkyl, aminoC1-C6alkoxy, C1-C6alkylaminoC1-C6alkyl, di(C1-C6alkyl)aminoC1-C6alkyl, Ph, naphthyl, 5-membered heteroarom. ring; X = O, S, NR1, R1 = H, C1-C6alkyl; Y = (CR2R3)n(CO)p(NR4)qW, R2, R3 = H, OH, halide, C1-C4alkyl, R4 = H, C1-C6alkyl, n = 0-4, p, q = 0, 1, r = 0-2, W = H, (halo)C1-C6alkoxy, (halo)(hydroxy)(amino)(carboxy)C1-C6alkyl, (halo)C3-C7cycloalkyl, Ph, 5-membered heteroarom. ring; etc.] were prepd. to treat or prevent conditions that may be ameliorated by modulating VR1 activity. For example, reacting dihydropyridopyrimidinone II with 3-FC6H4CH2Br in MeCN gave the benzylthio compd. III in 15% yield.

IT **852854-47-8P**
(prepn. of bicyclic pyrimidinone derivs. for treatment or prevention of conditions ameliorated by modulating VR1 activity, pain, and inflammation in humans and animals)

RN 852854-47-8 HCA

CN 6H-Purin-6-one, 1-[4-chloro-3-(1-methylethoxy)phenyl]-9-ethyl-1,2,3,4,8,9-hexahydro-2-thioxo- (9CI) (CA INDEX NAME)



IC ICM C07D471-04
ICS C07D495-04; C07D513-04; C07D473-22; C07D473-18; A61K031-522; A61P025-04

CC 26-9 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 63

IT 4664-01-1P, 3,4-Pyridinedicarboximide 25379-86-6P 59826-53-8P
771583-82-5P 852854-37-6P 852854-38-7P 852854-45-6P
852854-46-7P **852854-47-8P** 852854-48-9P 852854-49-0P
852854-50-3P 852854-51-4P 852854-52-5P 852854-53-6P
852854-54-7P 852854-55-8P 852854-56-9P 852854-57-0P
852854-58-1P 852854-59-2P 852854-60-5P 852854-61-6P
852854-62-7P 852854-63-8P 852854-64-9P 852854-65-0P
852854-66-1P 852854-67-2P 852854-68-3P 852854-70-7P
852854-71-8P 852854-72-9P 852854-73-0P
(prepn. of bicyclic pyrimidinone derivs. for treatment or prevention of conditions ameliorated by modulating VR1 activity, pain, and inflammation in humans and animals)

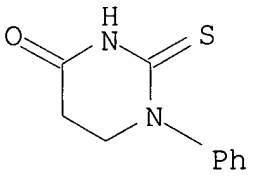
L24 ANSWER 2 OF 17 HCA COPYRIGHT 2005 ACS on STN
142:393134 Synthesis of hexahydropyrimidine derivatives and their polymer stabilizing properties. Beresnevicius, Zigmuntas J.; Mickevicius, Vytautas; Rutkauskas, Kcstutis; Kantminiene, Kristina (Kaunas University of Technology, Kaunas, LT-3028, Lithuania). Polish Journal of Chemical Technology, 5(3), 75-81 (English) 2003. CODEN: PJCTAP. ISSN: 1509-8117. Publisher: Technical University of Szczecin, Publishing House.

AB Twenty nine 1-aryldihydro-2,4(1H,3H)-pyrimidinediones, their 2-thio analogs, and 5- and 6-Me homologues were investigated as stabilizers of thermooxidative destruction. These derivs. of hexahydropyrimidine were synthesized by reaction of the corresponding N-aryl-, N-aryl-.alpha.-methyl- or N-aryl-.beta.-methyl-.beta.-alanines with carbamide or potassium rhodanide in acetic acid with the further addn. of hydrochloric acid. It was detd., that 1-(4-hydroxy-3,5-diisopropylphenyl)dihydro-2,4(1H,3H)-pyrimidinedione was the best stabilizer for poly(vinyl chloride). Low-d. polyethylene was effectively stabilized by 1-(4-phenylaminophenyl)dihydro-4(1H,3H)-pyrimidinone-2-thione.

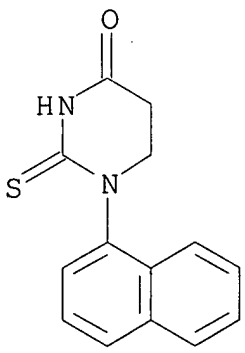
1-(1-Naphthyl)-, 1-(2-naphthyl)- and 1-(4-hydroxyphenyl)dihydro-4(1H,3H)-pyrimidinone-2-thiones were suitable stabilizers for polycaprolactam, polyamides PA 12 and PA 610. 1-(Hydroxyphenyl)-6-methyldihydro-4(1H,3H)-pyrimidinone-2-thione was sol. in ethanol and therefore was suitable for stabilization of polyamide by diffusion. 1-(1-Naphthyl)- and 1-(4-phenylaminophenyl)dihydro-4(1H,3H)-pyrimidinone-2-thiones were better stabilizers of polyacetals than NG 22-46 and other industrial stabilizers. Cellulose di- and triacetates were stabilized the best by 1-(1-naphthyl)-5 (and 6)-methyldihydro-4(1H,3H)-pyrimidinone-2-thiones which were sol. in methylene chloride and acetone.

IT **21320-98-9 28197-93-5 28215-19-2 79882-18-1 79882-19-2 84439-95-2 84439-96-3 84439-97-4 87973-72-6 87973-73-7 849996-54-9 849996-55-0 849996-56-1**
(hexahydropyrimidine diones and thiones as polymer stabilizers)

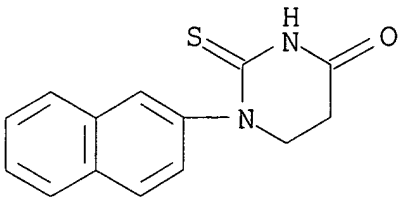
RN 21320-98-9 HCA
CN 4(1H)-Pyrimidinone, tetrahydro-1-phenyl-2-thioxo- (9CI) (CA INDEX NAME)



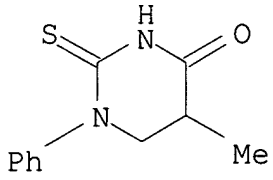
RN 28197-93-5 HCA
CN 4(1H)-Pyrimidinone, tetrahydro-1-(1-naphthalenyl)-2-thioxo- (9CI) (CA INDEX NAME)



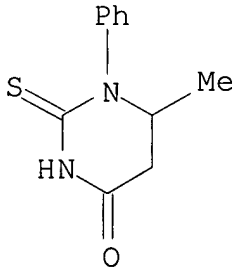
RN 28215-19-2 HCA
CN 4(1H)-Pyrimidinone, tetrahydro-1-(2-naphthalenyl)-2-thioxo- (9CI) (CA INDEX NAME)



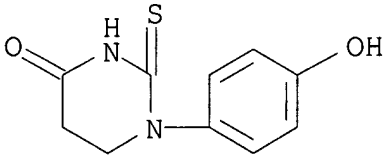
RN 79882-18-1 HCA
CN 4(1H)-Pyrimidinone, tetrahydro-5-methyl-1-phenyl-2-thioxo- (9CI) (CA INDEX NAME)



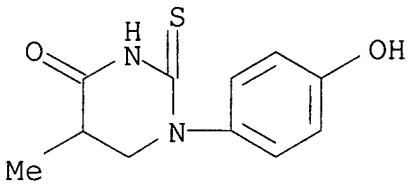
RN 79882-19-2 HCA
CN 4(1H)-Pyrimidinone, tetrahydro-6-methyl-1-phenyl-2-thioxo- (9CI) (CA INDEX NAME)



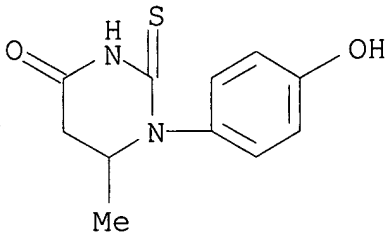
RN 84439-95-2 HCA
CN 4(1H)-Pyrimidinone, tetrahydro-1-(4-hydroxyphenyl)-2-thioxo- (9CI) (CA INDEX NAME)



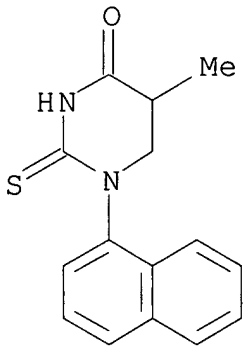
RN 84439-96-3 HCA
CN 4(1H)-Pyrimidinone, tetrahydro-1-(4-hydroxyphenyl)-5-methyl-2-thioxo- (9CI) (CA INDEX NAME)



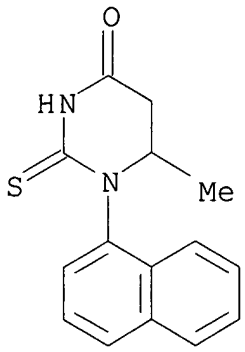
RN 84439-97-4 HCA
CN 4(1H)-Pyrimidinone, tetrahydro-1-(4-hydroxyphenyl)-6-methyl-2-thioxo-
(9CI) (CA INDEX NAME)



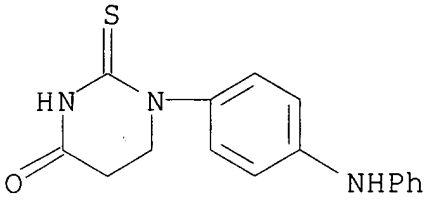
RN 87973-72-6 HCA
CN 4(1H)-Pyrimidinone, tetrahydro-5-methyl-1-(1-naphthalenyl)-2-thioxo-
(9CI) (CA INDEX NAME)



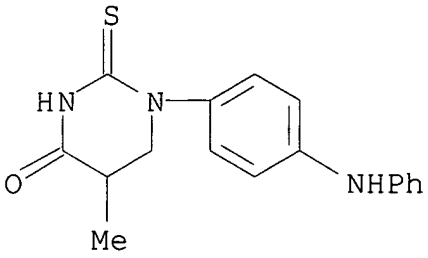
RN 87973-73-7 HCA
CN 4(1H)-Pyrimidinone, tetrahydro-6-methyl-1-(1-naphthalenyl)-2-thioxo-
(9CI) (CA INDEX NAME)



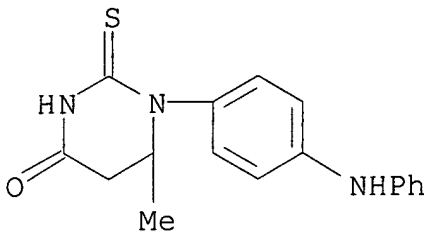
RN 849996-54-9 HCA
CN 4(1H)-Pyrimidinone, tetrahydro-1-[4-(phenylamino)phenyl]-2-thioxo- (9CI) (CA INDEX NAME)



RN 849996-55-0 HCA
CN 4(1H)-Pyrimidinone, tetrahydro-5-methyl-1-[4-(phenylamino)phenyl]-2-thioxo- (9CI) (CA INDEX NAME)

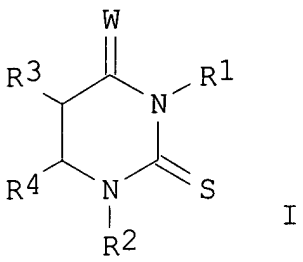


RN 849996-56-1 HCA
CN 4(1H)-Pyrimidinone, tetrahydro-6-methyl-1-[4-(phenylamino)phenyl]-2-thioxo- (9CI) (CA INDEX NAME)

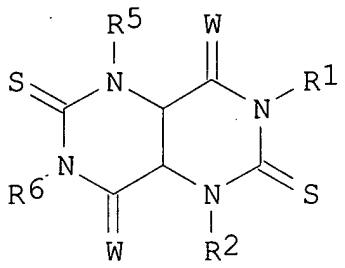


CC 37-6 (Plastics Manufacture and Processing)
ST hexahydropyrimidine dione thione heat stabilizer polymer; hexahydropyrimidinedione heat stabilizer polymer; **antioxidant** hexahydropyrimidine dione thione heat polymer; PVC stabilizer hexahydropyrimidine dione thione; polyethylene stabilizer hexahydropyrimidine dione thione; polyamide stabilizer hexahydropyrimidine dione thione; rubber stabilizer hexahydropyrimidine dione thione; polyoxymethylene stabilizer hexahydropyrimidine dione thione; cellulose acetate stabilizer hexahydropyrimidine dione thione
IT **Antioxidants**
Compressive strength
Electric resistance
Elongation at break
Heat stabilizers
(hexahydropyrimidine diones and thiones as polymer stabilizers)
IT 15533-68-3 **21320-98-9 28197-93-5** **28215-19-2** 36797-69-0 52492-97-4 79882-16-9 79882-17-0 **79882-18-1 79882-19-2** **84439-95-2 84439-96-3 84439-97-4** 86762-38-1 86762-39-2 **87973-72-6 87973-73-7** 191531-61-0 191531-62-1 191531-63-2 **849996-54-9** **849996-55-0 849996-56-1**
(hexahydropyrimidine diones and thiones as polymer stabilizers)

L24 ANSWER 3 OF 17 HCA COPYRIGHT 2005 ACS on STN
140:184417 Bicyclic thioureas as **lubricating** oil **antiwear, anticorrosion,** and **antioxidant** additives to replace zinc dialkyl dithiophosphates. Mukkamala, Ravindranath (USA). U.S. Pat. Appl. Publ. US 2004029743 A1 20040212, 4 pp. (English). CODEN: USXXCO. APPLICATION: US 2003-636111 20030807. PRIORITY: US 2002-2002/PV401540 20020807.
GI



I



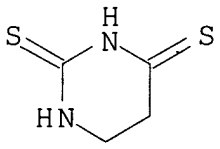
II

AB Cyclic and bicyclic thiourea-based **lubricating** oil **antiwear**, corrosion inhibitor, and **antioxidant** additives, as suitable replacements for zinc dialkyl dithiophosphates, are of general structure I, in which W = O or S; R1 and R2 are H, alkyl, alkenyl, aryl, or aralkyl; R3 and R4 are H, alkyl, alkenyl, aryl, or aralkyl, or R3 and R4 combine with ring carbon atoms to which they are attached to form a five-, six-, or seven-membered heterocyclic ring. At least one of R1-4 is C6-22-alkyl. In addn., the additives can be of general structure II, in which R1 and R2 are as described above, and R5. and R6 are H, alkyl, alkenyl, aryl, or aralkyl. The additives are present at 0.1-20 wt.% concn.

IT **4874-19-5D**, derivs. **5366-11-0D**, 4(1H)-Pyrimidinone, tetrahydro-2-thioxo-, derivs. **651049-46-6D**, derivs.
(additives; bicyclic thioureas as **lubricating** oil **antiwear**, **anticorrosion**, and **antioxidant** additives to replace zinc dialkyl dithiophosphates)

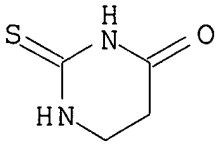
RN 4874-19-5 HCA

CN 2,4(1H,3H)-Pyrimidinedithione, dihydro- (9CI) (CA INDEX NAME)

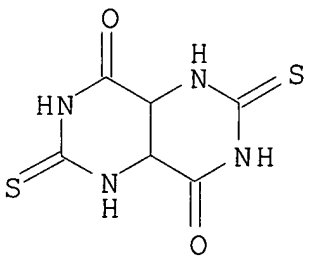


RN 5366-11-0 HCA

CN 4(1H)-Pyrimidinone, tetrahydro-2-thioxo- (9CI) (CA INDEX NAME)



RN 651049-46-6 HCA
CN Pyrimido[5,4-d]pyrimidine-4,8-dione, octahydro-2,6-dithioxo- (9CI) (CA INDEX NAME)



IC ICM C10M135-16
INCL 508256000
CC 51-8 (Fossil Fuels, Derivatives, and Related Products)
Section cross-reference(s): 28
ST cyclic thiourea **lubricating** oil **anticorrosion** **antiwear** **antioxidant** additive; bicyclic thiourea **lubricating** oil **anticorrosion** **antiwear** **antioxidant** additive
IT **Lubricating** oil additives
(**antioxidants**; bicyclic thioureas as **lubricating** oil **antiwear**, **anticorrosion**, and **antioxidant** additives to replace zinc dialkyl dithiophosphates)
IT **Lubricating** oil additives
(**antiwear**; bicyclic thioureas as **lubricating** oil **antiwear**, **anticorrosion**, and **antioxidant** additives to replace zinc dialkyl dithiophosphates)
IT **Lubricating** oil additives
(corrosion inhibitors; bicyclic thioureas as **lubricating** oil **antiwear**, **anticorrosion**, and **antioxidant** additives to replace zinc dialkyl dithiophosphates)
IT **4874-19-5D**, derivs. **5366-11-0D**, 4(1H)-Pyrimidinone, tetrahydro-2-thioxo-, derivs. **651049-46-6D**, derivs.
(additives; bicyclic thioureas as **lubricating** oil **antiwear**, **anticorrosion**, and **antioxidant** additives to replace zinc dialkyl dithiophosphates)
IT 15834-33-0D, Phosphorodithioic acid, dialkyl esters, zinc salts
(replacement of; bicyclic thioureas as **lubricating** oil **antiwear**, **anticorrosion**, and

antioxidant additives to replace zinc dialkyl dithiophosphates)

L24 ANSWER 4 OF 17 HCA COPYRIGHT 2005 ACS on STN

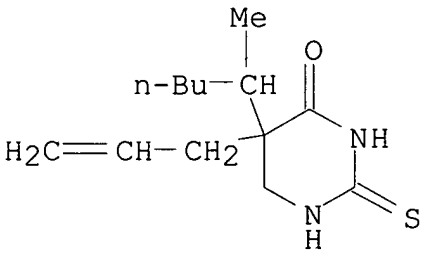
135:24775 Chiral separation of several thiobarbiturates on a cellulose tris(4-methylbenzoate) phase under reversed-phase conditions. Aboul-Enein, Hassan Y.; Schmid, Martin G.; Tuscher, Claudia; Gubitz, Gerald; Laffranchini, Maria; Bojarski, Jacek (Pharmaceutical Analysis Laboratory, Biological and Medical Research Department (MBC-03), King Faisal Specialist Hospital and Research Centre, Riyadh, 11211, Saudi Arabia). Journal of Liquid Chromatography & Related Technologies, 24(1), 69-77 (English) 2001. CODEN: JLCTFC. ISSN: 1082-6076. Publisher: Marcel Dekker, Inc..

AB The chiral sepn. of several thiobarbiturates on a tris(4-methylbenzoate) phase (Chiralcel OJ-R, 15 .times. 0.46 cm and Chiralcel OJ-R 15 .times. 0.20 cm) under reversed-phase conditions is described. The sepn. properties of a normal sized and a newly developed narrow-bore column were compared. The influence of buffer and org. modifiers on enantioselectivity was investigated. The three mobile phases used were water/acetonitrile (70:30, vol./vol.), water/acetonitrile/methanol (50:25:25, vol./vol.), and water/acetonitrile/methanol (55:15:30, vol./vol.). Of seven thiobarbiturates investigated, five have been resolved. The values of .alpha. (1.11-1.85) and Rs (0.71-5.75) have been reported.

IT **343339-86-6 343339-87-7**
(chiral sepn. of several thiobarbiturates on cellulose tris(4-methylbenzoate) phase by reversed-phase HPLC)

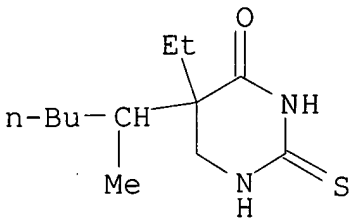
RN 343339-86-6 HCA

CN 4(1H)-Pyrimidinone, tetrahydro-5-(1-methylpentyl)-5-(2-propenyl)-2-thioxo- (9CI) (CA INDEX NAME)



RN 343339-87-7 HCA

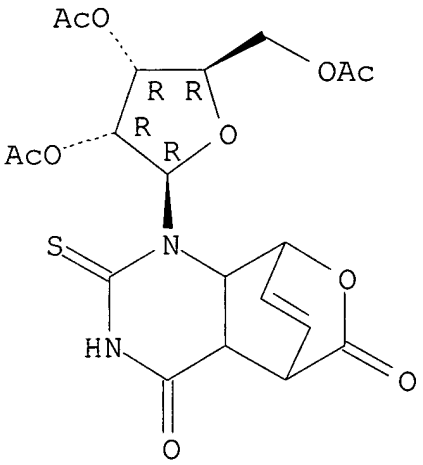
CN 4(1H)-Pyrimidinone, 5-ethyltetrahydro-5-(1-methylpentyl)-2-thioxo- (9CI) (CA INDEX NAME)



CC 64-3 (Pharmaceutical Analysis)
IT 67-52-7D, Barbituric acid, thio, 104169-72-4 156546-51-9
156546-52-0 156546-53-1 156546-54-2 156546-57-5 156617-92-4
156617-93-5 156617-97-9 157135-77-8 **343339-86-6**
343339-87-7 343339-88-8 343339-89-9 343339-90-2
(chiral sepn. of several thiobarbiturates on cellulose tris(4-methylbenzoate) phase by reversed-phase HPLC)

L24 ANSWER 5 OF 17 HCA COPYRIGHT 2005 ACS on STN
126:264306 Cycloaddition reactions with both of uridine and 2-thiouridine derivatives. Sayed Ahmed, A. F.; Hattaba, A. (Faculty of Science, Zagazig University, Zagazig, Egypt). Egyptian Journal of Pharmaceutical Sciences, 37(1-6), 423-429 (English) 1996. CODEN: EJPSBZ. ISSN: 0301-5068. Publisher: National Information and Documentation Centre.
AB Cycloaddn. of 2',3',5'-tri-O-acetyluridine and its 2-thio analog with either of 2H-pyran-2-one, 4,6-dimethyl-2H-pyran-2-one, and 2,3-bis(dibromomethyl)benzene is reported.
IT **188882-40-8P**
(cycloaddn. of uridine and thiouridine with pyranone and bis(dibromomethyl)benzene)
RN 188882-40-8 HCA
CN 5,8-Etheno-1H-pyrano[3,4-d]pyrimidine-4,6-dione, 2,3,4a,5,8,8a-hexahydro-2-thioxo-1-(2,3,5-tri-O-acetyl-.beta.-D-ribofuranosyl)- (9CI) (CA INDEX NAME)

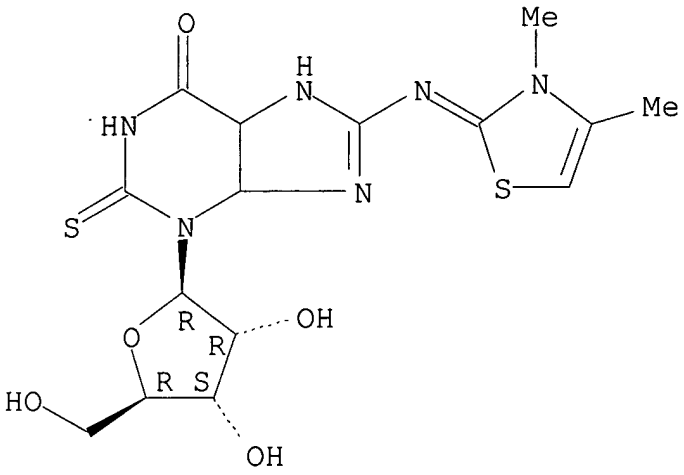
Absolute stereochemistry.



CC 33-9 (Carbohydrates)
IT 188882-39-5P **188882-40-8P**
(cycloaddn. of uridine and thiouridine with pyranone and bis(dibromomethyl)benzene)

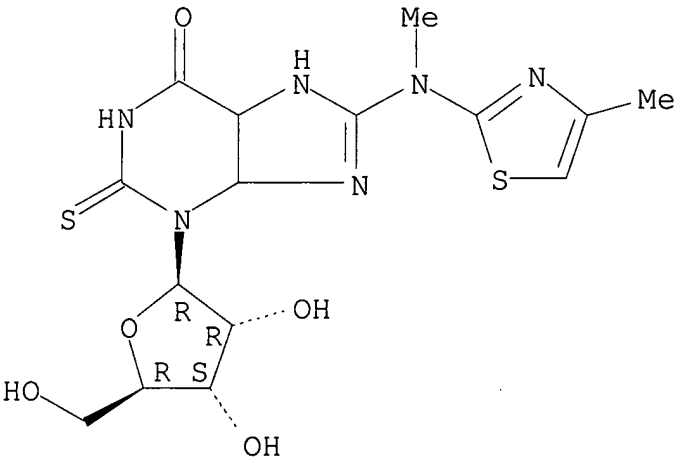
L24 ANSWER 6 OF 17 HCA COPYRIGHT 2005 ACS on STN
126:238610 Reactions of 5-bromo-6-methoxy-5,6-dihydrouridine and its 2-thio analog with both of some guanidines and mercaptoacrylic acid derivatives. Sayed Ahmed, A. F.; El Kafrawi, E. (Fac. Science, Zagazig Univ., Zagazig, Egypt). Egyptian Journal of Pharmaceutical Sciences, 37(1-6), 285-294 (English) 1996. CODEN: EJPSBZ. ISSN: 0301-5068. Publisher: National Information and Documentation Centre.
AB 5-Bromo-6-methoxy-5,6-dihydrouridine and its 2-thio analog were allowed to react with some substituted guanidine tautomers and .alpha.-mercapto-.beta.-phenylacrylic acid. The products are 5,6-cyclized derivs. of both of uridine and 2-thiouridine.
IT **188562-53-0P 188562-55-2P 188562-57-4P**
188562-59-6P 188562-61-0P
(cyclocondensation of bromomethoxydihydrouridine and its thio analog with guanidines and mercaptoacrylic acids)
RN 188562-53-0 HCA
CN Xanthosine, 8-[(3,4-dimethyl-2(3H)-thiazolylidene)amino]-4,5-dihydro-2-thio- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



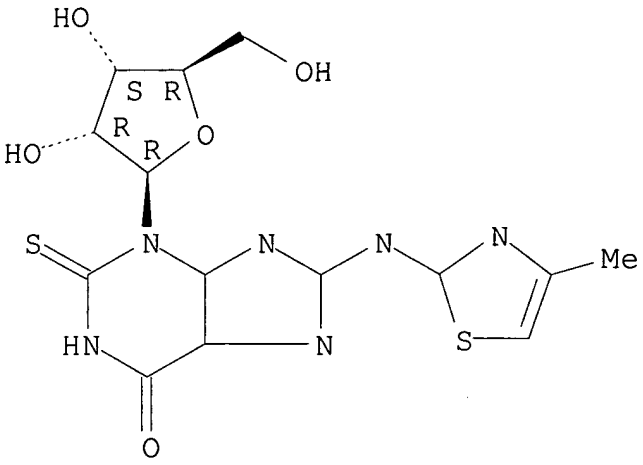
RN 188562-55-2 HCA
CN Xanthosine, 4,5-dihydro-8-[methyl(4-methyl-2-thiazolyl)amino]-2-thio- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



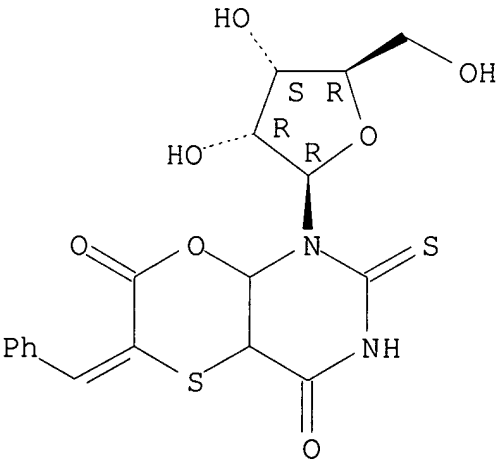
RN 188562-57-4 HCA
CN Xanthosine, 4,5-dihydro-8-[(4-methyl-2-thiazolyl)amino]-2-thio- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
RN 188562-59-6 HCA
CN [1,4]Oxathiino[2,3-d]pyrimidine-4,7(1H,6H)-dione, tetrahydro-6-(phenylmethylene)-1-.beta.-D-ribofuranosyl-2-thioxo- (9CI) (CA INDEX NAME)

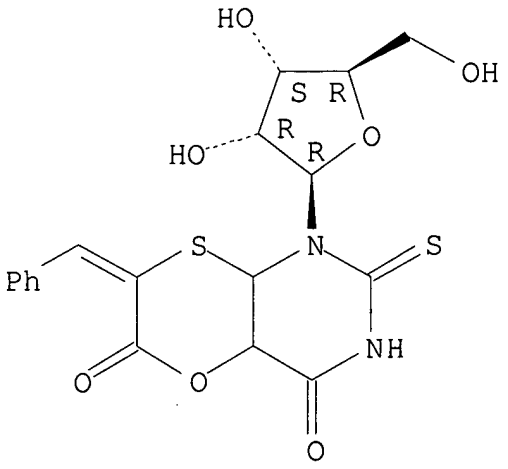
Absolute stereochemistry.
Double bond geometry unknown.



RN 188562-61-0 HCA
CN [1,4]Oxathiino[3,2-d]pyrimidine-4,6(1H,7H)-dione, tetrahydro-7-(phenylmethylene)-1-.beta.-D-ribofuranosyl-2-thioxo- (9CI) (CA INDEX NAME)

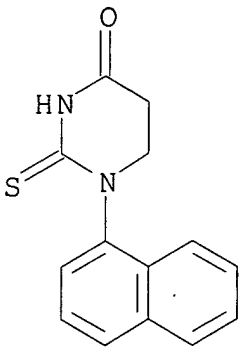
Absolute stereochemistry.

Double bond geometry unknown.



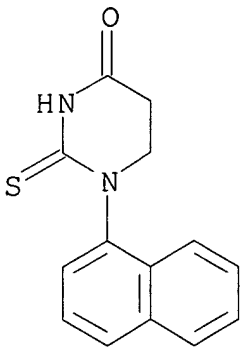
CC 33-9 (Carbohydrates)
IT 188562-52-9P **188562-53-0P** 188562-54-1P
188562-55-2P 188562-56-3P **188562-57-4P**
188562-58-5P **188562-59-6P** 188562-60-9P
188562-61-0P
(cyclocondensation of bromomethoxydihydrouridine and its thio analog with guanidines and mercaptoacrylic acids)

L24 ANSWER 7 OF 17 HCA COPYRIGHT 2005 ACS on STN
98:108417 Crosslinking polyethylene-based composition. Firsov, Yu. I.; Skripko, L. A.; Yakubovskaya, E. P.; Baltrusis, R. (USSR). U.S.S.R. SU 973567 A1 19821115 From: Otkrytiya, Izobret., Prom. Obraztsy, Tovarnye Znaki 1982, (42), 89. (Russian). CODEN: URXXAF. APPLICATION: SU 1981-3285358 19810313.
AB The title compn. contains polyethylene [9002-88-4] 96.0-98.8, org. peroxide 1-3, and 1-(1-naphthyl)-2-thiodihydrouracil [**28197-93-5**] **antioxidant** 0.2-1.0% and when cured has good strain resistance at elevated temps.
IT **28197-93-5**
(**antioxidants**, for peroxide-crosslinked polyethylene)
RN 28197-93-5 HCA
CN 4(1H)-Pyrimidinone, tetrahydro-1-(1-naphthalenyl)-2-thioxo- (9CI) (CA INDEX NAME)



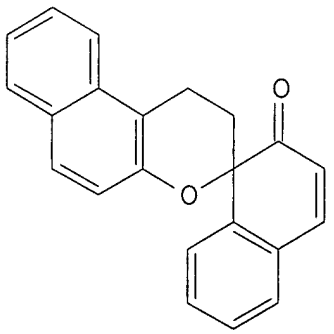
IC C08L023-06; C08K005-36
CC 37-6 (Plastics Manufacture and Processing)
ST polyethylene hydrothiouracil **antioxidant**; peroxide crosslinking polyethylene; naphthylthiodihydrouracil **antioxidant** polyethylene; thiodihydrouracil **antioxidant** polyethylene
IT **Antioxidants**
(naphthylthiodihydrouracil, for peroxide-crosslinked polyethylene)
IT **28197-93-5**
(**antioxidants**, for peroxide-crosslinked polyethylene)
IT 9002-88-4
(peroxide-crosslinked, naphthylthiodihydrouracil **antioxidant** for)

L24 ANSWER 8 OF 17 HCA COPYRIGHT 2005 ACS on STN
95:188470 Vulcanizable natural rubber stock containing a stabilizer. Donskaya, M. M.; Sidorova, L. A.; Baltrusis, R.; Beresnevicius, Z.; Andreev, L. V.; Fedorova, T. V.; Pilieva, Z. V. (USSR). U.S.S.R. SU 852903 19810807 From: Otkrytiya, Izobret., Prom. Obraztsy, Tovarnye Znaki 1981, (29), 119. (Russian). CODEN: URXXAF. APPLICATION: SU 1979-2798325 19790718.
AB The oxidn. resistance of vulcanizates was increased by using a stabilizer consisting of 0.5-3 parts 1-(1-naphthyl)-2-thiodihydrouracil [**28197-93-5**]/100 parts rubber.
IT **28197-93-5**
(**antioxidants**, for natural rubber)
RN 28197-93-5 HCA
CN 4(1H)-Pyrimidinone, tetrahydro-1-(1-naphthalenyl)-2-thioxo- (9CI) (CA INDEX NAME)



IC C08L009-00; C08K005-34
CC 38-9 (Elastomers, Including Natural Rubber)
ST naphthylthiodihydrouracil **antioxidant** rubber; thiodihydrouracil naphthyl **antioxidant** rubber
IT **Antioxidants**
((naphthyl)thiodihydrouracil, for natural rubber)
IT Rubber, natural, uses and miscellaneous
(**antioxidants** for, naphthylthiodihydrouracil as)
IT **28197-93-5**
(**antioxidants**, for natural rubber)

L24 ANSWER 9 OF 17 HCA COPYRIGHT 2005 ACS on STN
95:187193 Synthesis of some new tetracyclic heteroaromatic chromans via quinone methide intermediates. Chauhan, Mohinder S.; McKinnon, David M. (Dep. Chem., Univ. Manitoba, Winnipeg, MB, R3T 2N2, Can.). Canadian Journal of Chemistry, 59(14), 2223-7 (English) 1981. CODEN: CJCHAG. ISSN: 0008-4042. OTHER SOURCES: CASREACT 95:187193.
GI



I

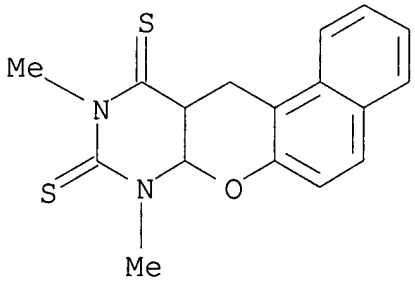
AB Several new tetracyclic heteroarom. chromans were prepd. by treating various uracil and 1,3-thiazine derivs. with 1,2-naphthoquinone

1-methide. The spirodimer I is a better source of naphthoquinone methide than the naphthol derivs. which provide chromans in low yield due to side reactions. The structure and mechanisms of the various products formed are discussed.

IT **79622-95-0**
(reaction of, with naphthoquinone methide)

RN 79622-95-0 HCA

CN 9H-Naphtho[1',2':5,6]pyrano[2,3-d]pyrimidine-9,11(10H)-dithione, 7a,8,11a,12-tetrahydro-8,10-dimethyl- (9CI) (CA INDEX NAME)



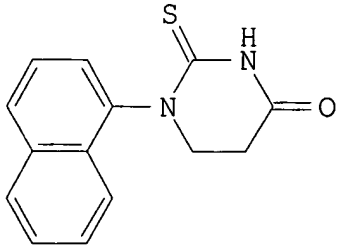
CC 28-17 (Heterocyclic Compounds (More Than One Hetero Atom))

IT 874-14-6 1193-26-6 1193-58-4 1193-87-9 49785-67-3 64359-56-4 79622-92-7 **79622-95-0**
(reaction of, with naphthoquinone methide)

L24 ANSWER 10 OF 17 HCA COPYRIGHT 2005 ACS on STN

86:141671 Study of the decorative properties of melamine-alkyd automobile enamels stabilized by 1-(1-naphthyl)-2-thiodihydrouracil. Baltrusis, R.; Zitkeviciute, I.; Mecinskas, M.; Beresnevicius, Z. (Kaunas. Politekh. Inst., Kaunas, USSR). Deposited Doc., VINITI 7096-73, 16 pp. Avail. BLLD (Russian) 1973.

GI



I

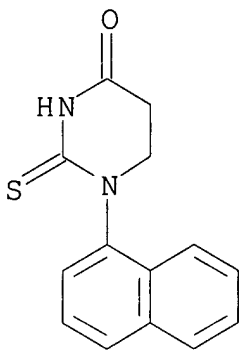
AB The durability of melamine-alkyd automotive enamels is improved by

incorporation of dihydro-1-(1-naphthyl)-2-thiouracil (I) [**28197-93-5**] by diffusion from a polishing compn. I probably acts as an **antioxidant** and also as a light stabilizer due to improved moisture barrier properties. The stabilizer can be introduced either industrially or at home.

IT **28197-93-5**
(stabilizers, for melamine-alkyd automobile enamels)

RN 28197-93-5 HCA

CN 4(1H)-Pyrimidinone, tetrahydro-1-(1-naphthalenyl)-2-thioxo- (9CI) (CA INDEX NAME)



CC 42-2 (Coatings, Inks, and Related Products)

ST automobile enamel stabilizer; naphthyl thiodihydrouracil stabilizer; thiouracil deriv stabilizer; uracil dihydronaphthylthio stabilizer; **antioxidant** dihydronaphthylthiouracil; diffusion stabilization automobile enamel

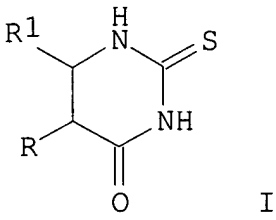
IT **Antioxidants**
Light stabilizers
(dihydronaphthylthiouracil, diffusion-introduced, for automobile enamels)

IT **28197-93-5**
(stabilizers, for melamine-alkyd automobile enamels)

L24 ANSWER 11 OF 17 HCA COPYRIGHT 2005 ACS on STN

85:184865 Light-sensitive recording materials developable by the action of heat. Suzuki, Nobuo; Noguchi, Yasuhiro; Masuda, Takao (Fuji Photo Film Co., Ltd., Japan). Ger. Offen. DE 2528553 19760122, 77 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1975-2528553 19750626.

GI



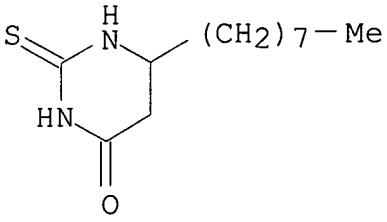
I

AB Heat developable, light-sensitive materials, which have a high sensitivity and show only a slight thermal fog formation, are composed of a suitable support coated with .gtoreq.1 layer contg. an org. Ag salt, a light-sensitive Ag halide or a material capable of reacting with the org. Ag salt to form a light-sensitive Ag halide, a reducing agent, and a 2-thiouracil deriv. I (R = H, Me, Bu, OH; R2 = H, Me, Et, naphthyl, octyl) to reduce thermal fog formation and increase the sensitivity of the material. Thus, to a dispersion contg. Ag laurate 6, poly(vinyl butyral) 12, and EtOH 70 g was added N-bromosuccinimide 0.15 g, the soln. stirred at 50.degree., a 1% soln. of 2-thiouracil in ethylene glycol monomethyl ether 5 ml added, and the dispersion heated for 90 min. To this dispersion were then added a 0.025% soln. of a spectral sensitizer in ethylene glycol monomethyl ether 10, a 3% soln. of lauric acid in ethylene glycol monomethyl ether 35, a 3% soln. of phthalazone in MeOH 50, a 20% soln. of 2,2-bis(3,5-dimethyl-4-hydroxyphenyl)propane in Me2CO 30 ml, and a 0.1% soln. of 2-thiouracil in ethylene glycol monomethyl ether 5 ml. This dispersion was then coated at 0.3 g Ag/m2 on a resin-laminated printing paper support, an overcoat of a SiO2 dispersion in a 10% soln. of Et cellulose (SiO2:Et cellulose = 1:10) added, the material imagewise exposed using a W-lamp (3000 lx-sec) and then developed for 30 sec at 120.degree. to give a sensitivity of 5.3, a Dmax of 1.5, and a fog of 0.20 vs. 1, 1.50, and 0.48, resp., for a 2-thiouracil-free control.

IT **62017-49-6**
(photothermog. copying compns. contg., for decreased thermal fogging)

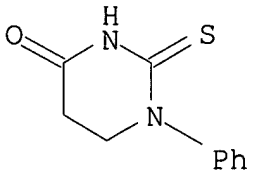
RN 62017-49-6 HCA

CN 4(1H)-Pyrimidinone, tetrahydro-6-octyl-2-thioxo- (9CI) (CA INDEX NAME)

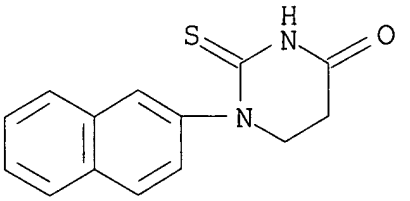


IC G03C
CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic Processes)
IT 56-04-2 141-90-2 141-90-2D, 4(1H)-Pyrimidinone, 2,3-dihydro-2-thioxo-, derivs. 35463-39-9 54089-08-6 60615-63-6 **62017-49-6**
(photothermog. copying compns. contg., for decreased thermal fogging)

L24 ANSWER 12 OF 17 HCA COPYRIGHT 2005 ACS on STN
82:172874 Stabilization of acetyl cellulose materials from thermal oxidative degradation. Baltrusis, R.; Beresnevicius, Z.; Paskevicius, V.; Libonas, J.; Beresneviciene, R.; Makhteeva, G. A.; Zhbankov, R. G.; Kulakov, V. A.; Monkeviciute, G. (Kaunas Polytechnic Institute, USSR). U.S.S.R. SU 455119 19741230 From: Otkrytiya, Izobret., Prom. Obraztsy, Tovarnye Znaki 1974, 51(48), 50. (Russian). CODEN: URXXAF. APPLICATION: SU 1971-1727181 19711220.
AB 1-(2-Naphthyl)-2-thiodihydrouracil [**28215-19-2**], 1-(2-naphthyl)dihydrouracil [36797-69-0] and 1-phenyl-2-thiodihydrouracil [**21320-98-9**] are used as **antioxidants** for cellulose acetate [9004-35-7].
IT **21320-98-9 28215-19-2**
(**antioxidants**, for cellulose acetate)
RN 21320-98-9 HCA
CN 4(1H)-Pyrimidinone, tetrahydro-1-phenyl-2-thioxo- (9CI) (CA INDEX NAME)

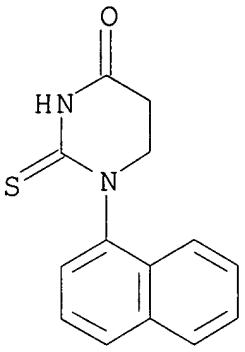


RN 28215-19-2 HCA
CN 4(1H)-Pyrimidinone, tetrahydro-1-(2-naphthalenyl)-2-thioxo- (9CI) (CA INDEX NAME)



IC C08B
CC 43-3 (Cellulose, Lignin, Paper, and Other Wood Products)
ST **antioxidant** cellulose acetate; uracil deriv
antioxidant acetylcellulose
IT **Antioxidants**
(uracil derivs., for cellulose acetate)
IT **21320-98-9 28215-19-2** 36797-69-0
(**antioxidants**, for cellulose acetate)
IT 9004-35-7
(**antioxidants**, uracil derivs. as)

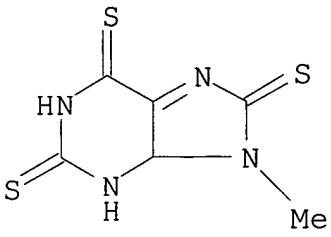
L24 ANSWER 13 OF 17 HCA COPYRIGHT 2005 ACS on STN
81:171552 Polishing composition. Mecinskas, M.; Beresnevicius, Z.; Baltrusis, R. (Kaunas Polytechnic Institute; Litbytkhim Firm). U.S.S.R. SU 421709 19740330 From: Otkrytiya, Izobret., Prom. Obraztsy, Tovarnye Znaki 1974, 51(12), 81. (Russian). CODEN: URXXAF. APPLICATION: SU 1971-1730079 19711227.
AB Polishing materials with improved protection against oxidative degrdn. were prepd. by addn. of uracil deriv. compds. to wax compns. Thus, 0.5-3% 1-(2-naphthyl)dihydrouracil [36797-69-0] or 1-(1-naphthyl)-2-thiodihydrouracil [**28197-93-5**] was added to a mixt. contg. ceresin 6-20, montan wax 3-5, silicone liq. mixt. 1.5-3, tetraethoxysilane 0.3-1, alkylphenol resin 0.7-1.5, surfactants 2.6-3.9, white spirit 35-45% and the balance H2O, to give the desired polishing compn.
IT **28197-93-5**
(**antioxidants**, for wax polishing compns.)
RN 28197-93-5 HCA
CN 4(1H)-Pyrimidinone, tetrahydro-1-(1-naphthalenyl)-2-thioxo- (9CI) (CA INDEX NAME)



IC C09G
CC 42-11 (Coatings, Inks, and Related Products)
ST uracil deriv **antioxidant** coating; polishing compn oxidn resistance; montan wax polishing compn; ceresin wax polishing compn
IT **Antioxidants**
(naphthyldihydrouracils, for wax polishing compns.)
IT Ceresin
Montan wax
(polishing materials, contg. uracil deriv. **antioxidants**)
IT Polishing materials
(waxes, uracil deriv. **antioxidants** for)
IT **28197-93-5** 36797-69-0
(**antioxidants**, for wax polishing compns.)

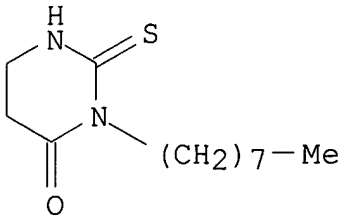
L24 ANSWER 14 OF 17 HCA COPYRIGHT 2005 ACS on STN
78:136229 Tautomerism, protonation, and methylation in (methylthio)purines. Factors determining electrophilic attack on purines. Reichman, Uri; Bergmann, Felix; Lichtenberg, Dov; Neiman, Zohar (Dep. Pharmacol., Heb. Univ., Jerusalem, Israel). Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999), No. 8, 793-800 (English) 1973. CODEN: JCPRB4. ISSN: 0300-922X.
AB The predominant tautomers, the position of protonation in aq. soln., and the course of methylation in aprotic solvents were detd. for all the mono- and bis(methylthio)purines and for 2,6,8,-tis(methylthio)purine. Protonation gave resonating cations in which the charge is distributed over both rings. 8-(Methylthio)-and 2,8-bis(methylthio)purine underwent methylation at N-1. 6-(Methylthio)-, 6,8-bis(methylthio)-, and 2,6,8-tris(methylthio)purine gave N-3 Me derivs. Methylation of 2-(methylthio)- and 2,6-bis(methylthio)purine occurred at both N-7 and N-9. The results were explained in terms of electronic and steric factors
IT **41039-45-6P**

(prepn. of)
RN 41039-45-6 HCA
CN 1H-Purine-2,6,8(3H)-trithione, 4,9-dihydro-9-methyl- (9CI) (CA INDEX NAME)



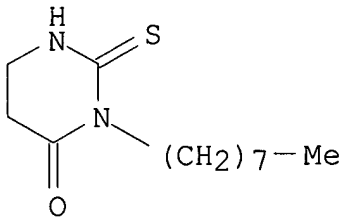
CC 28-19 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 22
IT 21802-40-4P 39008-31-6P 39013-74-6P 40577-24-0P 41039-32-1P
41039-33-2P 41039-34-3P 41039-41-2P 41039-43-4P 41039-44-5P
41039-45-6P 41124-32-7P 41124-33-8P 41186-93-0P
(prepn. of)

L24 ANSWER 15 OF 17 HCA COPYRIGHT 2005 ACS on STN
64:93467 Original Reference No. 64:17593c-d 3-Substituted 2-thiohydrouracils. Synthesis and antitubercular and antineoplastic activities. Glasser, Arthur C.; Doughty, Richard M. (Univ. of Kentucky, Lexington). Journal of Medicinal Chemistry, 9(3), 351-3 (English) 1966. CODEN: JMCMAR. ISSN: 0022-2623. OTHER SOURCES: CASREACT 64:93467.
AB A no. of 3-substituted 2-thiohydrouracils were synthesized by cyclization of the appropriate 1-carboxyethyl-3-substituted 2-thioureas using polyphosphoric acid. Ir spectral characteristics of the NCS-contg. mols. are discussed and compared. The thioureas and resulting thiohydrouracils were tested for their in vitro antitubercular activity with min. inhibitory concns. ranging from 1.3-2.5 mg.-% for the thioureas, and from 1.3-5.0 mg.-% for the thiohydrouracils. Several of the compds. were also tested for antineoplastic activity.
IT **5540-66-9**, Hydrouracil, 3-octyl-2-thio-
(prepn. and effect of, on Mycobacterium tuberculosis and neoplasms)
RN 5540-66-9 HCA
CN 4(1H)-Pyrimidinone, tetrahydro-3-octyl-2-thioxo- (9CI) (CA INDEX NAME)



CC 38 (Heterocyclic Compounds (More Than One Hetero Atom))
IT 1203-29-8, Hydrouracil, 3-phenyl-2-thio- **5540-66-9**, Hydrouracil, 3-octyl-2-thio- 5540-78-3, Hydrouracil, 3-(p-isopropoxyphenyl)-2-thio- 5540-80-7, Hydrouracil, 3-(p-propoxyphenyl)-2-thio- 5540-81-8, Hydrouracil, 3-(p-sec-butoxyphenyl)-2-thio- 5596-27-0, Hydrouracil, 3-(p-butoxyphenyl)-2-thio- 5596-28-1, Hydrouracil, 3-(p-methoxyphenyl)-2-thio- 30372-00-0, Hydrouracil, 3-[p-(sec-pentyloxy)phenyl]-2-thio-
(prepn. and effect of, on Mycobacterium tuberculosis and neoplasms)

L24 ANSWER 16 OF 17 HCA COPYRIGHT 2005 ACS on STN
64:93466 Original Reference No. 64:17593b-c Heterocycles. XI. 2-Oxo- and 2-thionooctahydroquinazoline-4-spirocyclohexanes. Zigeuner, G.; Adam, W.; Weichsel, H. (Univ. Graz, Austria). Monatshefte fuer Chemie, 97(1), 55-6 (German) 1966. CODEN: MOCMB7. ISSN: 0026-9247.
GI For diagram(s), see printed CA Issue.
AB cf. preceding abstr. I (R = H) (II) (4 g.) in 150 cc. AcOH hydrogenated under ambient conditions over PtO2 yielded the 2-oxodecahydroquinazoline analog of II, m. 190.degree. (aq. EtOH); mono-Ac deriv., m. 193-4.degree. (AcOEt). II (1 g.), 0.15 g. paraformaldehyde, and 0.55 g. piperidine HCl salt in 20 cc. EtOH heated 3 hrs. on the water bath gave I.HCl (R = piperidinomethyl) (III.HCl), m. 198.degree. (aq. Me2CO); III, m. 220-4.degree. (EtOH).
IT **5540-66-9**, Hydrouracil, 3-octyl-2-thio-
(prepn. and effect of, on Mycobacterium tuberculosis and neoplasms)
RN 5540-66-9 HCA
CN 4(1H)-Pyrimidinone, tetrahydro-3-octyl-2-thioxo- (9CI) (CA INDEX NAME)



CC 38 (Heterocyclic Compounds (More Than One Hetero Atom))

IT 1203-29-8, Hydrouracil, 3-phenyl-2-thio- **5540-66-9**, Hydrouracil, 3-octyl-2-thio- 5540-78-3, Hydrouracil, 3-(p-isopropoxyphenyl)-2-thio- 5540-80-7, Hydrouracil, 3-(p-propoxyphenyl)-2-thio- 5540-81-8, Hydrouracil, 3-(p-sec-butoxyphenyl)-2-thio- 5596-27-0, Hydrouracil, 3-(p-butoxyphenyl)-2-thio- 5596-28-1, Hydrouracil, 3-(p-methoxyphenyl)-2-thio- 30372-00-0, Hydrouracil, 3-[p-(sec-pentyloxy)phenyl]-2-thio-
(prepn. and effect of, on Mycobacterium tuberculosis and neoplasms)

L24 ANSWER 17 OF 17 HCA COPYRIGHT 2005 ACS on STN

52:1955 Original Reference No. 52:398c-h Synthesis in the lumiflavin series. II. Hemmerich, P.; Erlenmeyer, H. (Univ. Basel, Switz.). Helvetica Chimica Acta, 40, 180-6 (English) 1957. CODEN: HCACAV. ISSN: 0018-019X. OTHER SOURCES: CASREACT 52:1955.

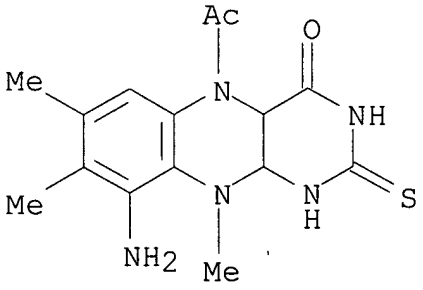
AB cf. C.A. 51, 2803i. Starting from lumiflavine and its 2-thio analog, the leucoflavine nucleus was obtained and stabilized by reductive acylation. The acyl leuco compds. seem to exhibit the possibility of substitution reactions in 2- and 4-positions. The new lumiflavines obtained show peculiar oxidation-reduction properties. 2-Thiolumiflavine (I) methylated in CHCl3 with MeI gives 3-methyl-2-thiolumiflavine hydroiodide in red platelets. Attempts to cleave the iodide with AgNO3 failed. P2S5 (2 g. tech.) in 40 ml. abs. pyridine is boiled with active C and filtered and the filtrate mixed with 0.3 g. lumiflavine and refluxed under stirring under N 2 hrs. The fluorescence disappeared, the soln. became light brown, and the residue was autoxidizable after evapn. Treatment with ice cold 2N HCl, filtration, and washing with H2O, MeOH, Me2CO leads to 0.3 g. (crude) 4-thiolumiflavine (II). Lumiflavine (0.5 g.) is treated in 20 ml. 50:50:1 Ac2O-AcOH-H2SO4 with Zn powder, the pale yellow mixt. filtered, evapd., and the residue treated with 50 ml. N AcONa to give 10-acetyl-1,10-dihydrolumiflavine (III) (acetylleucolumiflavine); the residue in N NH4OH, shaken with C and neutralized with 2N AcOH gives 0.45 g. 10-acetylleucolumiflavine, hydrolyzed with HCl to rhodolumiflavine. The latter is oxidized with O-AcONa or H2O2 to lumiflavine. Crude red-brown I (5 g.) is

boiled with 50 ml. AcOH-Ac2O, Zn added until the color changes from deep violet to brown, a voluminous ppt. dissolved in NaOH, the filtrate acidified with N HCl, and the ppt. filtered off at 0.degree. and purified by pptn. in N NaOH and 2N NH4OH to give 2.5 g. product, m. about 220.degree., decomp. to violet-brown I, m. 263.degree. (decompn.). The concd. AcOH filtrate worked up gives 1.0 g. 10-acetyl-1,10-dihydro-2-thiolumiflavine (IV), very unstable to heat. IV in 4-6N HCl oxidized leads to rhodothiolumiflavine and after neutralization to I. IV is methylated with NaOH-Me2SO4 to 10-acetyl-3-methyl-2-methylmercaptoleucolumiflavine (V), m. 268-72.degree. (decompn.). V sapond. with 4N HCl and treated with alk. H2O2 gives 3-methyllumiflavine. Crude IV (0.1 g.) dissolved in NH4OH and boiled with 0.5 g. fresh Raney Ni, filtered, neutralized with AcOH, and evapd. leads to 67% 2-deoxy-10-acetyl-1,10-dihydrolumiflavine (VI), which treated with 4N HCl gives a violet rhodoflavine. After addn. of NaOAc the soln. is extd. with CHCl3 to give 2-deoxylumiflavine (VII). In AcOH soln. VII is readily oxidized with H2O2 to lumiflavine in chromatographic purity. VII is unstable to air and does not crystallize.

IT **857209-15-5**, Lumiflavine, 5-acetyl-1,5-dihydro-2-thio-
(prepn. of)

RN 857209-15-5 HCA

CN Lumiflavine, 5-acetyl-1,5-dihydro-2-thio- (6CI) (CA INDEX NAME)



CC 10 (Organic Chemistry)

IT 14331-46-5, Benzo[g]pteridin-4(10H)-one, 7,8,10-trimethyl- 14471-76-2, Isoalloxazine, 7,8,10-trimethyl-2-thio- 15837-00-0, Lumiflavine, 4-thio- 15837-00-0, Isoalloxazine, 7,8,10-trimethyl-4-thio- 18636-32-3, Isoalloxazine, 3,7,8,10-tetramethyl- 58017-92-8, Alloxazine, 5-acetyl-5,10-dihydro-7,8,10-trimethyl- 98764-24-0, Benzo[g]pteridin-4(3H)-one, 5-acetyl-5,10-dihydro-3,7,8,10-tetramethyl-2-(methylthio)- 98843-58-4, Benzo[g]pteridin-4(3H)-one, 5-acetyl-5,10-dihydro-7,8,10-trimethyl- 98843-61-9, Alloxazine, 5-acetyl-5,10-dihydro-7,8,10-trimethyl-2-thio- 109102-35-4, Lumiflavine, 3-methyl-2-thio-, hydriodide 109102-35-4, Isoalloxazine, 3,7,8,10-tetramethyl-2-thio-, hydriodide 857209-08-6, Lumiflavine, 2-deoxy-

857209-15-5, Lumiflavine, 5-acetyl-1,5-dihydro-2-thio-
860415-59-4, Lumiflavine, 5-acetyl-1,5-dihydro- 860415-63-0,
Lumiflavine, 2-deoxy-5-acetyl-1,5-dihydro-
(prepn. of)

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FILE 'HCA' ENTERED AT 10:57:36 ON 02 NOV 2005
L25 362163 S CORRO? OR ANTICORRO? OR RUST? OR ANTIRUST?
L26 2 S L20 AND L25
L27 1 S L26 NOT L24

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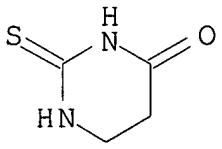
L27 ANSWER 1 OF 1 HCA COPYRIGHT 2005 ACS on STN
85:147731 Studies on the inhibition of metal **corrosion**. III. Some thiocarbonyl compounds as **corrosion** inhibitors for copper in acid solution. Hirooka, Motoko; Zen, Shonosuke (Sch. Pharm. Sci., Kitasato Univ., Tokyo, Japan). Nippon Kagaku Kaishi (7), 1167-70 (Japanese) 1976. CODEN: NKAKB8. ISSN: 0369-4577.

AB Thiocarbonyl compds. were effective **corrosion** inhibitors in acidic media. The most effective compd. was 2-mercaptobenzimidazole [583-39-1] which had 92.1 and 100% inhibitive effect at the concn. of 32 and 250 ppm, resp. The effect was due to the formation of an insol. chelate film on the Cu surface. The chelate structure was identified by ir spectra.

IT **5366-11-0**
(**corrosion** inhibition by, of copper, in acids)
RN 5366-11-0 HCA
CN 4(1H)-Pyrimidinone, tetrahydro-2-thioxo- (9CI) (CA INDEX NAME)



CC 56-8 (Nonferrous Metals and Alloys)
ST copper **corrosion** inhibitor thiocarbonyl compd
IT 7440-50-8, reactions
(**corrosion** by acids, inhibition by thiocarbonyl compds.)
IT 62-55-5 79-19-6 96-53-7 141-90-2 583-39-1 645-48-7
2227-79-4 2382-96-9 **5366-11-0** 7382-40-3 20174-30-5

(**corrosion** inhibition by, of copper, in acids)